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MONARDA RUSSELIANA (LAMIACEAE) IN KANSAS

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ABSTRACT

Recent field studies have resulted in the discovery of *Monarda russeliana* in Woodson Co., Kansas. The species has previously been reported in Kansas but as a misapplication of the name *M. russeliana* (which is now treated as *M. bradburiana*). A short review of the pertinent literature, description of the site of occurrence, photographs of the natural habitat, and close up of specimen are presented. The occurrence of *M. russeliana* in Missouri, which was examined as part of this study, is briefly discussed and refuted.

Steyermark (1963), apparently following Fernald (1944), used the name *Monarda russeliana* to refer to the species of Missouri and surrounding states now correctly known as *M. bradburiana*. While the mention of *M. russeliana* in Kansas may not have been directly stated, it was implied through use of overly broad statements ("surrounding states," etc.) and the misapplication of the name *M. russeliana* for *M. bradburiana*, a species also occurring in that state. A summary of this is presented in Yatskievych (1999), who correctly used the name *M. bradburiana* in place of the misapplied name *M. russeliana* in Missouri. Yatskievych further mentions that true *M. russeliana* is restricted to southeastern Oklahoma and adjacent portions of Arkansas and Texas, in effect excluding *M. russeliana* from both Missouri and Kansas. The distribution of *M. russeliana*, as mapped by Kartesz (2016), includes eastern Oklahoma, western Arkansas, northeast Texas, central Kentucky, northern Alabama, and Taney Co., Missouri (see endnote). Based upon the following specimen, we document the occurrence of *M. russeliana* in Kansas.

> **Kansas**. Woodson County. Woodson County State Lake (Lake Fagen), post oak savanna-slightly mesic woodland, upper rim of creek, above creek drainage, 8 Jul 2016, *Singhurst 21049* (BAYLU). Figure 1. Two populations were observed, one inside the park (37°47'36.97" N, 95°50'21.74" W) and one outside (37°47'33.52" N, 95°49'41.82" W, where the specimen was collected). Only one specimen was collected due to the few number of plants present.

The *Monarda russeliana* site is located near the northern tip of the crosstimbers vegetational region of Kansas (Schoewe 1949; see Fig. 1) in the Chautauqua Hills, which are continuous with the post oak-blackjack oak forests of Oklahoma (Woods et al. 2005), which in turn is continuous with the post oak savannah and cross timbers of northeast and north-central Texas (Correll & Johnston 1970). The geology is sandstone outcrops with sandy loam soils. At this time, this is the most northern known record of the species in the western portion of its distribution. Associated vegetation, particularly in Kansas, consists of *Quercus stellata*, *Quercus marilandica*, *Cornus drummondii*, *Rhus glabra*, *Viburnum rufidulum*, *Vitis* sp., *Smilax bona-nox*, *Schizachyrium scoparium*, *Andropogon virginicus*, *Chasmanthium latifolium*, *Tridens flavus*, *Scleria ciliata*, *Parthenocissus quinquefolia*, *Liatris squarossa* var. *glabrata*, *Antennaria parlinii*, *Lespedeza* sp., *Elymus* sp., *Buchnera americana*,

Chamaecrista fasciculata, *Lechea tenuifolia*, *Achillea millefolium*, *Asclepias verticillata*, *Erigeron* sp., and *Stylosanthes biflora*.

Figure 1. *Monarda russeliana* in Woodson Co., Kansas (*Singhurst 21049*, BAYLU). Photo by J.R. Singhurst.

Figure 2. *Monarda russeliana* habitat in Kansas. Photo by J.R. Singhurst.

Comments on the occurrence of *Monarda russeliana* in Missouri

Kartesz (2016) currently maps *Monarda russeliana* from Taney County of southwest Missouri based upon *McReynolds 750675* (LSU) [a photo of the documenting specimen is online at <images.cyperfloralouisiana.com/images/specimensheets/lsu00090923.jpg>. We suggest that *McReynolds 750675* is *M. bradburiana*, based upon the ovate nature of the leaves and shortness (or lack) of petioles. *Monarda russeliana* has lanceolate leaves with petioles about 5 mm long. It appears that the original determination of this specimen as *M. russeliana*, based upon collection date, was made using Steyermark's Flora of Missouri (1963), where the name *M. russeliana* is misapplied.

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